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| INTERNATIONAL APP. NO. | INTERNATIONAL FILING DATE | PRIORITY DATE CLAIMED |
| PCT/EP03/008569 | 31 July 2003 | 02 August 2002 |

TITLE OF INVENTION

VACCINE COMPOSITION COMPRISING LIPOOLIGOSACCHARIDE WITH REDUCED PHASE VARIABILITY

APPLICANT(S) FOR DO/US

Ralph BIEMANS, Philippe DENOEL, Christiane FERON, Carine GORAJ, Michael Paul JENNINGS, Jan POOLMAN, Vincent WEYNANTS

FILING OF AN INFORMATION DISCLOSURE STATEMENT

Applicants request that the references identified on Form PTO-1449 appended hereto be considered by the Examiner and officially made of record in accordance with the provisions of 37 CFR 1.97

A copy of the International Search Report, which issued on International Application No. PCT/EP03/008569 is submitted herewith. All of the publications cited in the International Search Report are listed on the attached form PTO-1449 and Applicants understand that copies have been supplied to the U.S. Patent Office by the International Bureau.

Copies of references not listed on the International Search Report are enclosed.

The attached list of citations on PTO Form 1449 is being submitted under the provisions of 37 CFR §1.56 and §1.97 in order to comply with the duty of disclosure. Their inclusion herein should not, however, be construed as an admission that any particular cited reference is effective prior art or that it discloses or renders obvious any aspect of the claimed invention. This statement is being filed within the time period specified in 37 CFR §1.97(b). No fee is required.

Respectfully submitted,


Jason Fedon
Agent for Applicants
Registration No. 48,138

GLAXOSMITHKLINE
Corporate Intellectual Property - UW2220
P.O. Box 1539
King of Prussia, PA 19406-0939
Phone (610) 270-6316
Facsimile (610) 270-5090
N:\JAS\PTO\B45309\USNATL.doc

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| Form PTO-1449 | U.S. Department of Commerce Patent and Trademark Office | ATTY. DOCKET NO. B45309 | INTERNATIONAL APPLICATION NO. PCT/EP03/008569 107523055 |
| INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use several sheets if necessary)</i> | | APPLICANT Biemans et al. | |
| | | FILING DATE Herewith | GROUP Not Yet Assigned |

U.S. PATENT DOCUMENTS

| Examiner Initial | | Document Number | Date | Name | Class | Subclass | Filing Date If Appropriate |
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FOREIGN PATENT DOCUMENTS

| | | Document Number | Date | Country | Class | Subclass | Translation Yes No |
|--|--|-----------------|---------|---------|-------|----------|-------------------------|
| | | WO 01/09350 | 2/8/01 | PCT | | | |
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

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| | Jennings et al., "The Genetic Basis of the Phase Variation Repertoire of Lipopolysaccharide Immunotypes in <i>Neisseria Meningitidis</i> ". <i>Microbiology</i> , <u>145</u> (Pt. 11): 3013-3021 (1999). |
| | Jennings et al., "Molecular Analysis of a Locus for the Biosynthesis and Phase-Variable Expression of the Lacto-N-Tetraose Terminal Lipopolysaccharides Structure in <i>Neisseria Meningitidis</i> ". <i>Molecular Microbiol.</i> , <u>18</u> (4): 729-740 (1995). |
| | Drabick et al., "Safety and Immunogenicity Testing of an Intranasal Group B Meningococcal Native Outer Membrane Vesicle Vaccine in Healthy Volunteers". <i>Vaccine</i> , <u>18</u> (1-2): 160-172 (1999). |
| | Banerjee et al., "Identification of the Gene (lgtG) Encoding the Lipooligosaccharide Beta Chain Synthesizing Glucosyl Transferase from <i>Neisseria Gonorrhoeae</i> ". <i>PNAS US.</i> , <u>95</u> (18): 10872-10877 (1998). |
| | Gu et al., "Preparation, Characterization, and Immunogenicity of Meningococcal Lipooligosaccharide-Derived Oligosaccharide-Protein Conjugates". <i>Infection & Immunity</i> , <u>61</u> (5): 1873-1880 (1993). |
| | Anderson et al., "Lipopolysaccharide Heterogeneity and Escape Mechanisms of <i>Neisseria Meningitidis</i> : Possible Consequences for Vaccine Development". <i>Microbial Pathogenesis</i> , <u>23</u> : 139-155 (1997). |
| | Zakirov et al., "Immunological Activity of <i>Neisseria Meningitidis</i> Lipooligosaccharide Incorporated into Liposomes". <i>Zhurnal Mikrobiologii Epidemiologii I Immunobiologii</i> , <u>0</u> (1): 49-53 (1995). |

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| EXAMINER | DATE CONSIDERED |
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EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.